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(54) Title: **CONDITIONED QUICKLIME FOR INJECTION TO A MOLTEN BATH OF A STEEL-MAKING VESSEL**

(57) Abstract: In a method of producing steel using a steel-making vessel, where lime is used as a flux material that is blown, from above, into a steel-making bath along with an oxygen stream, providing a flux material composition of calcium oxide having a particle size of less than 250 mesh, which contains a flow aid material that is a polymeric siloxane, in an amount of less than 0.5 percent by weight of the calcium oxide, and injecting the flux material composition through a lance along with oxygen into the steel-making bath contained in the steel-making vessel.